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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,401	08/28/2003	Rick Roland	030145	6529

23696 7590 07/23/2008

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EXAMINER	
DESIR, PIERRE LOUIS	

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
07/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/650,401	ROLAND ET AL.	
	Examiner	Art Unit	
	PIERRE-LOUIS DESIR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-15,18-27 and 30-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-15,18-27 and 30-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed o 04/21/2008 have been fully considered but they are not persuasive.

2. Applicants argue on page 11 of the remarks that since each of the independent claims are amended to include the limitation "wherein the sufficient system information is system information Type 3 in a Global System for mobile communication system (which were incorporated from now canceled claims 5-6, 16-17, and 28-29), the present invention is limited to GSM systems, and that all three of the cited references relate to only CDMA systems and are therefore incompatible with the system Information type 3.

Examiner respectfully disagrees.

First, it should be noted that in paragraph 1024 of the present invention, Applicants discloses that the system of the present invention may be a CDMA system.

Wiley, Lee, and Wang, in combination, disclose all the limitations of the Independent claims except for the disclosure of "wherein the sufficient system information is system information type 3 in a GSM system.

However, as disclosed in the previous office action, Persson discloses a soft handoff an a GSM system and Alvesalo does disclose a process of sending system information in a System Information Type 3 message.

Therefore, a combination of Wiley, Lee, and Wang with Alvesalo and Persson would have been obvious to one skilled in the art to have included the system information type 3

message to conform with the GSM specification in order to include the use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

Additionally, applicants argue that the inventive feature of the present invention has been overlooked by examiner. And, that inventive feature is readily shown by contrasting prior art figure 3 with figure 4. Examiner concludes by stating that the present invention significantly reduces time gap after reselection during which the device cannot receive paging messages over the paging channel of the second base station.

Examiner does understand Applicants' arguments. However, this disclosure is not present in the claims' language and Applicant's arguments amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 7, 10-15, 18-22, 32 and 33-35 rejected under 35 U.S.C. 103(a) as being unpatentable over Willey in view of Lee et al (US 20030174674A1), Wang et al (US 6178164B1), Persson et al (US5577047A) and Alvesalo (US 5384824A).

Regarding claim 1, Willey discloses that a wireless communication device measures neighbor pilot strengths and pro vides the identities of the base stations corresponding to the

measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging Channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "device in a wireless communication system, comprising: a reselection unit operative to provide an indication to perform cell reselection from a first base station to a second base station; a control unit operative to initiate a cell reselection procedure for the second base station in response to the indication from the reselection unit, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "monitoring unit operative to receive sufficient system information to process a paging channel for the' second base station.., start monitoring the paging channel upon reception of the sufficient system information.., and prior to completion of the cell reselection procedure."

Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs

43-48), which reads on the claimed receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate.

The combination of Willey and Lee et al fails to expressly disclose determining which particular time intervals are assigned to the device for the paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information

provided by the synchronization channel and using a predetermined Walsh sequence. Base station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56), which reads on the claimed, "determine time intervals assigned to the device for the paging channel based on the sufficient system information," and, "monitor the paging channel during the time intervals assigned to the device," and "to receive from a broadcast channel of the second base station sufficient system information to process a paging channel of the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System

Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8).

Regarding claim 2, the combination of Willey, Lee et al and Wang et al discloses that the infrastructure uses the reported identities and measured pilot strengths to allocate the base station for soft handoff and to transmit the paging channel messages over the paging channels of the base stations corresponding to the active pilot and the reported neighboring pilots. After performing each access probe, logic and control circuit assigns a plurality of finger receivers to the active pilot and the reported neighboring pilots, and the assigned receiver fingers simultaneously demodulate the paging channels of the respective base stations (see Willey column 6, lines 7-27), which reads on the claimed, "the control unit is operative to direct reception of full system information for the second base station in order to complete the cell reselection procedure and for two-way communication with the second base station."

Regarding claim 7, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "apparatus in a wireless communication system, comprising: means for providing an indication to perform cell reselection from a first base station to a second base station; means for

performing a cell reselection procedure for the second base station in response to the indication from the reselection unit, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "means for receiving...sufficient system information to process a paging channel for the second base station; and means for starting monitoring of the paging channel upon receiving the sufficient system information...and prior to completing the cell reselection procedure."

Willey fails to disclose receiving from a broadcast channel of the second base station sufficient system information to process a paging channel of the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting

the handoff with is able to perform the handoff without entering into system determination substate.

The combination of Willey and Lee et al fails to expressly disclose determining which particular time intervals are assigned to the device for the paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information provided by the synchronization channel and using a predetermined Walsh sequence. Base station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56), which reads on the claimed, "determining time intervals assigned to the device for the paging channel based on the sufficient system information," and, "monitoring the paging channel during the time intervals assigned to the device," and "receiving from a broadcast

channel of the second base station sufficient system information to process a paging channel of the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8).

Regarding claim 10, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the' initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "method of performing cell reselection in a wireless communication system, comprising: providing an indication to perform cell reselection from a first base station to a second base station; performing a cell reselection procedure for the second base station in response to the indication to perform cell reselection, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "receiving...sufficient system information to process a paging channel for the second base station; and starting monitoring of the paging channel upon receiving the sufficient system information.., and prior to completing the cell reselection procedure." Willey fails to disclose receiving from a broadcast channel of the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base

station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing into system determination substate. The combination of Willey and Lee et al fails to expressly disclose determining which particular time intervals are assigned to the device for the paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information

provided by the synchronization channel and using a predetermined Walsh sequence. Base station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56), which reads on the claimed, "determining time intervals assigned to the device for the paging channel based on the sufficient system information," and, "monitoring the paging channel during the time intervals assigned to the device," and "receiving from a broadcast channel of the second base station sufficient system information to process a paging channel of the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System

Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8)

Regarding claim 11, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "processor readable media for storing instructions operable in a wireless device to: provide an indication to perform cell communication system; perform a cell reselection procedure for the second base station in response to the indication to perform cell reselection, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "receive...sufficient system information to process a paging channel for the second base station; and start monitoring of the paging channel upon receiving the sufficient system information...and prior to completing the cell reselection procedure." Willey fails to disclose receiving from a broadcast channel of the second base station

sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in .the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose determining which particular time intervals are assigned to the device for the paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses that when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station

idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information provided by the synchronization channel and using a predetermined Walsh sequence. Base station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8)

Regarding claim 12, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "device in a wireless communication system, comprising: a reselection unit operative to provide an indication to perform cell reselection from a first base station to a second base station." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "control unit operative to, in response to the indication from the reselection unit, direct decoding of designated system information from a broadcast channel for the second base station, and if the designated system information.., is decoded successfully, switch to the second base station and initiate a cell reselection procedure for the second base station, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station

as a new serving cell," wherein the acknowledgement (see figure 2) reads on the designated system information. Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above decoding of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose skipping the cell reselection procedure is the system information is not decoded successfully.

In a similar field of endeavor, Wang et al disclose when mobile station is fully within the coverage of base station 26a, the pilot channel of base station 26b is below the T ADD level, and a handoff will not occur (see column 9, line 65 - column 10, line 38), which reads on the claimed, "use successful or unsuccessful decoding of the designated system information as reconfirmation of ability to decode control channel for the second base station prior to performing cell reselection to the second base station," and, "skip the cell reselection procedure

if the designated system information is not decoded successfully."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8)

Regarding claim 13, the combination of Willey, Lee et al and Wang et al

discloses that the infrastructure uses these reported identities and measured pilot strengths to allocate the base station for soft handoff and to transmit the paging channel messages over the paging channels of the base stations corresponding to the active pilot and the reported neighboring pilots. After performing each access probe, logic and control circuit assigns a plurality of finger receivers to the active pilot and the reported neighboring pilots, and the assigned receiver fingers simultaneously demodulate the paging channels of the respective base stations (see Willey column 6, lines 7-27), which reads on the claimed, "the control unit is operative to direct reception of full system information for the second base station in order to complete the cell reselection procedure and for two-way communication with the second base station."

Regarding claim 14, the combination Willey, Lee et al and Wang et al discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated and the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see Willey column 3, lines 51-67), which reads on the claimed, "monitoring unit operative to obtain, from the designated system information, sufficient system information to process a paging channel for the second base station and to initiate monitoring of the paging channel when the cell reselection procedure is

initiated."

Regarding claim 15, the combination of Willey, Lee et al and Wang et al discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated and the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see Willey column 3, lines 51-67), which reads on the claimed, "monitoring unit operative to receive sufficient system information to process a paging channel for the second base station and to initiate monitoring of the paging channel upon reception of the sufficient information and prior to completion of the cell reselection procedure."

Regarding claim 18, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "apparatus in a wireless communication system, comprising: means for providing an indication to perform cell reselection from a first base station to a second base station." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication

device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "means for decoding designated system information from a broadcast channel for the second base station in response to the indication to perform cell reselection; and means for, if the designated system information.., is decoded successfully, switching over to the second base station and performing a cell reselection procedure for the second base station, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell," wherein the acknowledgement (see figure 2) reads on the designated system information. Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above decoding of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose skipping the cell

reselection procedure is the system information is not received successfully.

In a similar field of endeavor, Wang et al disclose when mobile station is fully within the coverage of base station 26a, the pilot channel of base station 26b is below the T ADD level, and a handoff will not occur (see column 9, line 65 - column 10, line 38), which reads on the claimed, "means for using successful or unsuccessful decoding of the designated system information as reconfirmation of ability to decode the control channel for the second base station prior to performing cell reselection to the second base station," and, "means for skipping the cell reselection procedure if the designated system information is not decoded successfully."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fails to expressly disclose that the sufficient information is system information type 3 in a GSM system.

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8).

Regarding claim 19, the combination of Willey, Lee et al and Wang et al discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated and the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see Willey column 3, lines 51-67), which reads on the claimed, "means for starting monitoring of a paging channel for the second base station upon receiving sufficient system information to process the paging channel and prior to completing the cell reselection procedure."

Regarding claim 20, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the

measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "method of performing cell reselection in a wireless communication system, comprising: providing an indication to perform cell reselection from a first base station to a second base station." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "decoding designated system information from a broadcast channel for the second base station in response to the indication to perform cell reselection; and if the designated system information., . is decoded successfully, switching over to the second base station, and performing a cell reselection procedure for the second base station, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell," wherein the acknowledgement (see figure 2) reads on the designated system information. Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs

43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above decoding of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering ' into system determination substate. The combination of Willey and Lee et al fails to expressly disclose skipping the cell reselection procedure is the system information is not received successfully.

In a similar field of endeavor, Wang et al disclose when mobile station is fully within the coverage of base station 26a, the pilot channel of base station 26b is below the T ADD level, and a handoff will not occur (see column 9, line 65 - column 10, line 38), which reads on the claimed, "using successful or unsuccessful decoding of the designated system information as reconfirmation of ability to decode the control channel for the second base station prior to performing cell reselection to the second base station," and, "skipping the cell reselection procedure if the designated system information is not decoded successfully."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

The combination of Wiley, Lee and Wang fail to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al and Wang et al with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8)

Regarding claim 21, the combination of Willey, Lee et al and Wang et al discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated and the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile

station's current active pilot (see Willey column 3, lines 51-67), which reads on the claimed, "the designated system information includes sufficient system information to process a paging channel for the second base station, the method further comprising: starting monitoring of the paging channel for the second base station upon performing the cell reselection procedure."

Regarding claim 22, the combination of Willey, Lee et al and Wang et al discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated and the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see Willey column 3, lines 51-67), which reads on the claimed, "receiving sufficient system information to process a paging channel for the second base station; and starting monitoring of the paging channel for the second base station upon receiving the sufficient system information and prior to completing the cell reselection procedure."

Regarding claim 32, Willey fails to disclose the cell reselection procedure is initiated when the device is in an idle mode.

In a similar field of endeavor, Lee et al discloses the use of idle handover (see paragraph 38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above idle handover in order to provide

a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

In a similar field of endeavor, Wang et al disclose synchronization information received from a synchronization channel that includes timing information, and begins to monitor the paging channel (see column 6, lines 35-56), which reads on the claimed, time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system-access process as suggested by Wang et al (see column 4, lines 53-59).

Regarding claim 33, Willey fails to disclose no transmissions are sent to the first or second base station for the cell reselection procedure.

In a similar field of endeavor, Lee et al discloses a system for handover without any transmissions are sent to the first or second base station for the cell reselection procedure (see, e.g., figure 3).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above elimination of I transmissions to the first or second base station for the cell reselection procedure in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without

entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

In a similar field of endeavor, Wang et al disclose synchronization information received from a synchronization channel that includes timing information, and begins to monitor the paging channel (see column 6, lines 35-56), which reads on the claimed, time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

Regarding claim 34, Willey discloses the wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "the monitoring unit is operative to monitor the paging channel during the assigned paging blocks to detect for paging messages sent by the second base station to the device." Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an

extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

In a similar field of endeavor, Wang et al disclose synchronization information received from a synchronization channel that includes timing information, and begins to monitor the paging channel (see column 6, lines 35-56), which reads on the claimed, time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device, and, "the control unit is further operative to use the sufficient system information to determine paging blocks assigned to the device by the second base station."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the

above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

Regarding claim 35, Willey fails to disclose the monitoring unit is operative to receive the sufficient system information from a broadcast control channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, "the monitoring unit is operative to receive the sufficient system information from a broadcast control channel for the second base station."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose time intervals are determined based on the sufficient system information to detect for paging messages sent by the second base station to the device.

In a similar field of endeavor, Wang et al disclose synchronization information received from a synchronization channel that includes timing information, and begins to monitor the paging channel (see column 6, lines 35-56), which reads on the claimed, time intervals are determined based on the sufficient system information to detect for paging messages sent by the

second base station to the device, and, "the control unit is further operative to use the sufficient system information to determine paging blocks assigned to the device by the second base station."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59).

5. Claims 23, 24, 26, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willey in view of Lee et al and Wang et al, Weaver, Jr et al (US 5828661A), Persson and Alvesalo.

Regarding claim 23, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "device in a wireless communication system, comprising: a reselection unit operative to provide an indication to perform cell reselection from a first base station to a second base station; a control unit operative to initiate a cell reselection procedure for the second base station in response to the indication from the reselection unit, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active

pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "monitoring unit operative to monitor a first paging channel for the first base station...to receive...sufficient system information to process a second paging channel for the second base station, and to monitor the second paging channel upon receiving the sufficient system information..., wherein the monitoring of the first paging channel and the monitoring of the second paging channel overlap in time." Willey fails to disclose receiving from a broadcast channel of the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to

expressly disclose determine which particular time intervals assigned to the device for the second paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses that when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information provided by the synchronization channel and using a predetermined Walsh sequence. Base station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al

(see column 4, lines 53-59). The combination of Willey, Lee et al and Wang et al fails to expressly disclose ceasing to monitor the paging channel upon a terminating event.

In a similar field of endeavor, Weaver, Jr. et al discloses a system where a soft handoff ends when communication with the first base station is terminated (see column 2, lines 51-65).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Wang et al and Lee et al with Weaver, Jr. et al to include the above termination of communication with the first base station in order to save resources when the terminal is no longer in range of the first base station.

The combination of Wiley, Lee, Wang, and Weaver fails to expressly disclose that the sufficient information is system information type 3 in a GSM system.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Weaver, and Wang et al, with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al, Weaver, and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with

Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8).

Regarding claim 24, the combination of Willey, Lee et al, Wang et al and Weaver, Jr. et al discloses that the infrastructure uses the reported identities and measured pilot strengths to allocate the base station for soft handoff and to transmit the paging channel messages over the paging channels of the base stations corresponding to the active pilot and the reported neighboring pilots. After performing each access probe, logic and control circuit assigns a plurality of finger receivers to the active pilot and the reported neighboring pilots, and the assigned receiver fingers simultaneously demodulate the paging channels of the respective base stations (see Willey column 6, lines 7-27), which reads on the claimed, "the control unit is operative to direct reception of full system information for the second base station in order to complete the cell reselection procedure and for two-way communication with the second base station."

Regarding claim 26, the combination of Willey, Lee et al, Wang et al and Weaver, Jr. et al discloses that the infrastructure uses the reported identities and measured pilot strengths to allocate the base station for soft handoff and to transmit the paging channel messages over the paging channels of the base stations corresponding to the active pilot and the reported neighboring pilots (see Willey column 6, lines 7-27), which reads on the claimed, "the control unit is further operative to initiate registration with the second base station."

Regarding claim 30, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least

one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "apparatus in a wireless communication system, comprising: means for providing an indication to perform cell reselection from a first base station to a second base station; means for performing a cell reselection procedure for the second base station in response to the indication to perform cell reselection, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell; means for monitoring a first paging channel for the first base station." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "means for receiving.., sufficient system information to process a second paging channel for the second base station; and means for monitoring the second paging channel upon receiving the sufficient system information, wherein the monitoring of the first paging channel and the monitoring of the second paging channel overlap in time." Willey fails to disclose receiving from a broadcast channel of the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs

43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose means for determining which particular time intervals assigned to the apparatus for the second paging channel based on the sufficient system information.

In a similar field of endeavor, Wang discloses that when searcher 10 detects a pilot signal with energy above a predetermined threshold value, mobile station 2 enters the synchronization channel acquisition substate and attempts acquisition of the synchronization channel. Typically, the synchronization channel as broadcast by the base stations includes basic system information such as the system identification (SID) and the network identification (NID), but most importantly provides timing information to mobile station 2. Mobile station 2 adjusts its timing in accordance with the synchronization channel information and then enters the mobile station idle state. Upon successful acquisition of the synchronization channel, mobile station 2 begins to monitor the paging channel in accordance with a predetermined paging format. Mobile station 2 demodulates a signal based on a predetermined Walsh sequence that is reserved for paging channel transmissions. For example if the acquired pilot signal is transmitted by base station 26a, mobile station 2 monitors the paging channel in accordance with timing information provided by the synchronization channel and using a predetermined Walsh sequence. Base

station 26a intermittently transmits overhead information on the paging channel (see column 6, lines 35-56).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59). The combination Of Willey, Wang et al and Lee et al fails to expressly disclose ceasing to monitor the paging channel upon a terminating event.

In a similar field of endeavor, Weaver, Jr. et al discloses a system where a soft handoff ends when communication with the first base station is terminated (see column 2, lines 51-65).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Wang et al and Lee et al with Weaver, Jr. et al to include the above termination of communication with the first base station in order to save resources when the terminal is no longer in range of the first base station.
In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Weaver, and Wang et al, with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al, Weaver, and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8) Regarding claim 31, Willey discloses that a wireless communication device measures neighbor pilot strengths and provides the identities of the base stations corresponding to the measured pilot strengths to the system infrastructure in the initial access probe, indicating at least one neighboring pilot that has sufficient measured pilot strength that an associated paging channel could be successfully demodulated (see column 3, lines 51-67), which reads on the claimed, "method for performing cell reselection in a wireless communication system, comprising: providing an indication to perform cell reselection from a first base station to a second base station; performing a cell reselection procedure for the second base station in response to the indication to perform cell reselection, wherein the first base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell." The wireless communication device begins monitoring the Paging Channels of the active pilot and the at least one neighboring pilot, thus, a soft handoff is made and the wireless communication device demodulates the Paging Channel from at least one neighboring pilot as well as the mobile station's current active pilot (see column 3, lines 51-67), which reads on the claimed, "monitoring a first paging channel for the first base station.., receiving.., sufficient system information to process a second paging channel for the second base station; and monitoring the second paging

channel upon receiving the sufficient system information...wherein the monitoring of the first paging channel and the monitoring of the second paging channel overlap in time." Willey fails to disclose receiving from the second base station sufficient system information to process a paging channel for the second base station.

In a similar field of endeavor, Lee et al disclose a system where a mobile station receives an overhead message of a paging channel transmitted from the neighbor base station with an extended CDMA channel list message of a paging channel transmitted from the neighbor base station and another overhead message of the paging channel transmitted from the neighbor base station, which is an extended system parameter message of the paging channel (see paragraphs 43-48), which reads on the claimed, receiving from the second base station sufficient system information to process a paging channel for the second base station.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Lee et al to include the above reception of system information from the second base station in order to provide a method for performing handoff and supporting the handoff with is able to perform the handoff without entering into system determination substate. The combination of Willey and Lee et al fails to expressly disclose determining time intervals assigned to the device for the second paging channel based on the sufficient system information.

In a similar field of endeavor, Wang et al disclose synchronization information received from a synchronization channel that includes timing information, and begins to monitor the paging channel (see column 6, lines 35-56), which reads on the claimed, "determining time intervals assigned to the device for the second paging channel based on the sufficient system

information."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Lee et al with Wang et al to include the above timing information from the synchronization channel in order to provide increased reliability in the system access process as suggested by Wang et al (see column 4, lines 53-59). The combination of Willey and Lee et al fails to expressly disclose ceasing to monitor the paging channel upon a terminating event.

In a similar field of endeavor, Weaver, Jr. et al discloses a system where a soft handoff ends when communication with the first base station is terminated (see column 2, lines 51-65).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Wang et al and Lee et al with Weaver, Jr. et al to include the above termination of communication with the first base station in order to save resources when the terminal is no longer in range of the first base station.

In a similar field of endeavor, Persson et al disclose soft handoff in a GSM system (see column 4, lines 3-28).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Weaver, and Wang et al, with Persson et al to include the above use of GSM in order to take advantage of the benefits of GSM, such providing users with global coverage.

The combination of Willey, Lee et al, Wang et al, Weaver, and Persson et al fails to disclose sending system information in a System Information Type 3 message in GSM.

In a similar field of endeavor, Alvesalo discloses sending system information in a System

Information Type 3 message (see column 3, lines 3-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al and Persson et al with Alvesalo to include the system information in a System Information Type 3 message in order to conform with the GSM specification as suggested by Alvesalo (see column 3, lines 3-8).

6. Claims 3, 4, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willey in view of Lee et al, Wang et al, Persson, and Alvesalo as applied to claims 1 and 7 above, and further in view of Hafiz (US 6505042B1).

Regarding claim 3, the combination of Willey, Lee et al, Wang, and Alvesalo et al fails to disclose receiving a paging message on the paging channel of the second base station prior to completion of the cell reselection procedure and responding to the paging message via the second base station after completion of the cell reselection procedure.

In a similar field of endeavor, Hafiz discloses a system where a cellular telephone receives the paging message form multiple BTSs and identifies the BTS from which ,it receives the paging message having the strongest signal, to which the cellular telephone transmits a response message on the corresponding access channel to acknowledge receipt of the paging message and a link is established with that BTS (see column 3, lines 1-23), which reads on the claimed, "receive a paging message on the paging channel for the second base station prior to completion of the cell reselection procedure and to respond to the paging message via the second base station after completion of the cell reselection procedure."

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to modify the combination of Willey, Lee et al, Persson, Alvesalo and Wang et al with Hafiz to include the above receiving a page from multiple stations and responding to the one with the strongest signal in order to increase the probability that a communication link will be established between the cellular phone and a BTS as suggested by Hafiz (see column 2, lines 1-9).

Regarding claim 4, the combination of Willey, Lee et al, Persson, Alvesalo, and Wang et al fails to expressly disclose receiving a paging message on the paging channel for the second base station prior to completion of the cell reselection procedure, abort the cell reselection procedure and respond to the paging message via the first base station.

In a similar field of endeavor, Hafiz discloses a system where a cellular telephone receives the paging message form multiple BTSs and identifies the BTS from which it receives the paging message having the strongest signal, to which the cellular telephone transmits a response message on the corresponding access channel to acknowledge receipt of the paging message and a link is established with that BTS (see column 3, lines 1-23), which reads on the claimed, "receiving a paging message on the paging channel for the second base station prior to completion of the cell reselection procedure, abort the cell reselection procedure and respond to the paging message via the first base station," wherein responding to the page to only one of the BTSs reads on aborting of the handover.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Persson, Alvesalo, and Wang et al with Hafiz to include the above receiving a page from multiple stations and responding to the one with the strongest signal in order to increase the probability that a communication link will be

established between the cellular phone and a BTS as suggested by Hafiz (see column 2, lines 1-9).

Regarding claim 8, the combination of Willey, Lee et al, Persson, Alvesalo, and Wang et al fails to disclose receiving a paging message on the paging channel of the second base station prior to completion of the cell reselection procedure and responding to the paging message via the second base station after completion of the cell reselection procedure.

In a similar field of endeavor, Hafiz discloses a system where a cellular telephone receives the paging message form multiple BTSs and identifies the BTS from which it receives the paging message having the strongest signal, to which the cellular telephone transmits a response message on the corresponding access channel to acknowledge receipt of the paging message and a link is established with that BTS (see column 3, lines 1-23), which reads on the claimed, "means for receiving a paging message on the paging channel for the second base station prior to completion of the cell reselection procedure; and means for responding to the paging message via the second paging channel."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al., Persson, Alvesalo, and Wang et al with Hafiz to include the above receiving a page from multiple stations and responding to the one

with the strongest signal in order to increase the probability that a communication link will be established between the cellular phone and a BTS as suggested by Hafiz (see column 2, lines 1-9)

Regarding claim 9, the combination of Willey, Lee et al, Persson, Alvesalo, and Wang et

al fails to expressly disclose receiving a paging message on the paging channel for the second base station prior to completion of the cell reselection procedure, abort the cell reselection procedure and respond to the paging message via the first base station.

In a similar field of endeavor, Hafiz discloses a system where a cellular telephone receives the paging message form multiple BTSs and identifies the BTS from which it receives the paging message having the strongest signal, to which the cellular telephone transmits a response message on the corresponding access channel to acknowledge receipt of the paging message and a link is established with that BTS (see column 3, lines 1-23), which reads on the claimed, "means for receiving a paging message on the paging channel for the second base station prior to completing the cell reselection procedure; means for aborting the cell reselection procedure; and means for responding to the paging message via the first base station," wherein responding to the page to only one of the BTSs reads on aborting of the handover.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al., Persson, Alvesalo, and Wang et al with Hafiz to include the above receiving a page from multiple stations and responding to the one with the strongest signal in order to increase the probability that a communication link will be established between the cellular phone and a BTS as suggested by Hafiz (see column 2, lines 1-9).

7. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willey in view of Lee et al, Wang et al, Persson, Alvesalo, and Weaver, Jr. et al as applied to claim 23 above, and further in view of Anderson et al (US006161013A).

Regarding claim 25, the combination of Willey, Lee et al, Wang et al, Persson , Alvesalo, and Weaver, Jr. et al fails to disclose the terminating event is reception of a first paging message on the second paging channel.

In a similar field of endeavor, Anderson et al disclose a system where a user station maintains its original air channel connection with the originating base station until a new air channel is acquired with an acknowledge message (see column 16, lines 20- 36), which reads on the claimed, "the terminating event is reception of a first paging message on the second paging channel."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al, Persson , Alvesalo, and Weaver, Jr. et al with Anderson et al to include the above maintaining of the original air channel until the new channel is acknowledged in order to provide a seamless, undetectable handover as suggested by Anderson et al (see column 15, lines 16-20).

Regarding claim 27, the combination of Willey, Lee et al, Wang et al, Persson , Alvesalo, and Weaver, Jr. et al fails to disclose the terminating event is the registration with the second base station.

In a similar field of endeavor, Anderson et al disclose a system where a user station maintains its original air channel connection with the originating base station until a new air channel is acquired with an acknowledge message (see column 16, lines 20- 36), which reads on the claimed, "the terminating event is the registration with the second base station."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey, Lee et al, Wang et al, Persson , Alvesalo, and

Weaver, Jr. et al with Anderson et al to include the above maintaining of the original air channel until the new channel is acknowledged in order to provide a seamless, undetectable handover as suggested by Anderson et al (see column 15, lines 16-20).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PIERRE-LOUIS DESIR whose telephone number is (571)272-7799. The examiner can normally be reached on Monday-Friday 9:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571)272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner,
Art Unit 2617

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/650,401	ROLAND ET AL.	
	Examiner	Art Unit	
	PIERRE-LOUIS DESIR	2617	